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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,201	11/19/2004	Josef Beller	20 01 0496	9182
27623	7590	05/10/2006	EXAMINER	
OHLANDT, GREELEY, RUGGIERO & PERLE, LLP ONE LANDMARK SQUARE, 10TH FLOOR STAMFORD, CT 06901			LEE, JOHN D	
			ART UNIT	PAPER NUMBER
			2874	

DATE MAILED: 05/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/500,201

Applicant(s)

BELLER, JOSEF

Examiner

John D. Lee

Art Unit

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2004 is/are: a) ☒ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 0604.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

This application is a National Stage Application of International Application Number PCT/EP02/00357, filed on January 16, 2002. It is noted that there is no foreign priority claimed beyond the International Application filing date.

The single sheet of drawings submitted on June 28, 2004, is objected to by the Examiner because Figures 1a and 1b should be labeled as "PRIOR ART". Corrected drawings are required as a part of the response to this Office action. Corrections to the drawings will not be held in abeyance.

The disclosure has not been studied to the extent necessary to discover all possible minor errors therein. Applicant's cooperation is requested in correcting any other errors of which applicant may become aware in the specification.

Claims 3, 8, 13, and 14 are objected to because of the following minor informalities. In claim 3, line 1, "the claims 1" should be simply "claim 1". In claim 3, line 2, the word "using" should be changed to "combining" in order to agree with language used in independent claim 1. In claims 8 and 14, it is not clear if the variables recited therein have units associated with them. If so, such units should be specified in the claims. In claim 13, line 2, the word "create" should be inserted before "the optical".

The following is a quotation of the second paragraph of 35 U.S.C. § 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-15 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In independent claims 1, 10, 11, and 15, the terminology "at most" confuses the claim meaning to the point that the intended meaning cannot be discerned, since the implication could be that the spectral density broadening

causes the onset of desired nonlinear effects in the optical component, or that the presence of nonlinear effects in the optical component is the most deleterious effect that can happen when the spectral density is broadened. The remaining language in each of these claims does not clarify the issue. The same confusing terminology appears in dependent claim 6. Claims 1, 10, 11, and 15, along with all claims dependent thereon, are therefore indefinite. In addition, in dependent claim 4, the last phrase “to be not equal to each other” is unclear. Is it the *spacing* or the *center wavelengths* themselves that are made to be “not equal to each other”? Further, in dependent claims 8, 9, and 14, the use of the term “preferably” makes these claims even more indefinite. Description of examples or preferences is properly set forth in the specification rather than in the claims. If stated in the claims, examples and preferences may lead to confusion over the intended scope of a claim, making it unclear if the claimed narrower range is the actual desired limitation. Such is the case herein, as the desired metes and bounds of claims 8, 9, and 14 is unclear due to the term “preferably”. See MPEP § 2173.05(d).

The claims will next be examined with respect to prior art as best understood in light of the indefiniteness explained above.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:


A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent.

Claims 1-6 and 11-13 are further rejected under 35 U.S.C. § 102(a) as being clearly anticipated by U.K. Patent Application Publication 2 359 684 A to Glingener et al. Glingener discloses an apparatus and method for broadening the frequency spectrum

Art Unit: 2874

(i.e. broadening the spectral density) of an optical signal in order to minimize or counteract the undesired nonlinear effects due to the Stimulated Brillouin Scattering (SBS) phenomenon, by combining a plurality of initial laser modulated optical signals.

 The plurality of initial optical signals can<sup>be</sup> different wavelengths, different center wavelength spacings, different optical power, etc. See Figure 1 of Glingener et al.

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

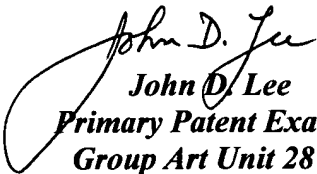
Claims 7-10, 14, and 15 are further rejected under 35 U.S.C. § 103(a) as being unpatentable over U.K. Patent Application Publication 2 359 684 A to Glingener et al. No specific numerical values are given by Glingener for center wavelength spacings among the plurality of initial optical signals. A wavelength spacing of 20 nm or less, however, would have been obvious to the person of ordinary skill in the art since specific values would be chosen in order to get the best results (in order to counteract the undesired SBS effects). Any particular coupling efficiency for coupling together the plurality of initial optical signals would also have been obvious for the same reason. Although Glingener et al does not mention use of the technique and apparatus in optical time domain reflectometry (OTDR), it is clear that it would be appropriate for use in any field requiring the minimization or reduction of undesired nonlinear effects due to the Stimulated Brillouin Scattering (SBS) phenomenon. Using the Glingener et al technique and apparatus for optical time domain reflectometry, then, would have been obvious to

the person of ordinary skill. Putting the method into executable form for running on a computer would likewise have been obvious.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 5,754,334 to Artiglia et al corresponds to European Patent document EP 0767395, which was cited by the International Examiner. U.S. Patent Application Publication 2004/0047020 to Islam et al describes a system for modifying an optical spectrum to reduce nonlinear optical effects, the system including a plurality of optical sources for producing a plurality of initial optical signals.

All of the prior art documents submitted by applicant in the Information Disclosure Statement accompanying the filing of this application have been considered and made of record (note the attached initialed copy of form PTO-1449).

Any inquiry concerning the merits of this communication should be directed to Examiner John D. Lee at telephone number (571) 272-2351. The Examiner's normal work schedule is Tuesday through Friday, 6:30 AM to 5:00 PM. Any inquiry of a general or clerical nature (i.e. a request for a missing form or paper, etc.) should be directed to the Technology Center 2800 receptionist at telephone number (571) 272-1562, to the technical support staff supervisor (Team 8) at telephone number (571) 272-1564, or to the Technology Center 2800 Customer Service Office at telephone number (571) 272-1626.

  
**John D. Lee**  
**Primary Patent Examiner**  
**Group Art Unit 2874**